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10/780,169	02/17/2004	David J. Waller	200311815-1	1264

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HEWLETT PACKARD COMPANY  
P O BOX 272400, 3404 E. HARMONY ROAD  
INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER
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UHLENHAKE, JASON S

ART UNIT	PAPER NUMBER
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2853

NOTIFICATION DATE	DELIVERY MODE
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02/05/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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mkraft@hp.com  
ipa.mail@hp.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/780,169	<b>Applicant(s)</b> WALLER ET AL.	
	<b>Examiner</b> Jason Uhlenhake	<b>Art Unit</b> 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-56 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12, 29 and 30 is/are allowed.
- 6) ☒ Claim(s) 13-22, 24-28, 31-36 and 38-56 is/are rejected.
- 7) ☒ Claim(s) 14, 15, 19, 23 and 37 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. The Examiner has reopened the case in order to clear the rejection of record.

#### ***Claim Rejections – 35 U.S.C. § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by Hirano et al (U.S. Pat. 5,907,334).

#### ***Hirano et al discloses:***

- ***regarding claim 13***, first (10) and second (19) sleds, the first sled including a first engagement (11) structure and first and second retaining walls (1a, 1b) positioned on opposite sides of the first engagement structure, and the second sled including a second engagement (20-22) structure positioned adjacent the second retaining wall (Column 2, Lines 59 – 67; Column 3, Lines 1 – 19; Column 5, Lines 47 – 67; Column 6, Lines 1 – 11; Figures 1, 3)
- a servicing station drive structure (Column 5, Lines 47-67; Column 6, Lines 1 – 11) movable between a disengaged position, a first engaged position (when

the cap 37 is engaged with black head 11), and a second engaged position (when cap 34 is engaged with color heads 20-22), the drive structure in the first engaged position engaging the first engagement structure and the drive structure in the second engaged position engaging the second engagement structure (Figures 1, 3)

- a biasing member (35, 38, 34a, 37a) that biases the servicing station drive structure to move from the first engaged position to the second engaged position (Column 5, Line 63 – Column 6, Line 3; Column 6, Lines 12-15; Column 7, Lines 40-45)

Claims 31-35, 38-39, 42, 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Belon et al (U.S. Pat. 6,172,691).

***Belon et al discloses:***

- ***regarding claim 31***, a driveshaft (82); a sled (180) including a rack (198) adapted to selectively engage the driveshaft and a retaining wall (housing structure 52) positioned to retain the driveshaft on the rack in a zone (Column 7, Lines 28 – 30, Lines 45 – 55; Column 8, Lines 11 – 27)

- ***regarding claim 32***, the driveshaft is shiftable between a disengaged position and an engaged position where the driveshaft engages a powered gear and rack (Column 7, Lines 28 – 30, Lines 45 – 55; Column 8, Lines 11 – 27)

- ***regarding claim 33***, the powered gear is operatively connected to a power shaft (124) that, when the driveshaft is in the engaged position, the powered gear transmits power to the driveshaft (Column 5, Lines 17-35)

- **regarding claim 34**, the powered gear is an idler gear and where the power shaft transmits power to the driveshaft through the idler gear (Column 7, Lines 28 – 30, Lines 45 – 55; Column 8, Lines 11 – 27)
- **regarding claim 35**, a shift arm (146) that moves between an engaged position and a disengaged position, wherein movement of the shift arm (146) from the disengaged position to the engaged position moves the driveshaft into engagement with the idler gear and the rack (Column 7, Lines 28 – 30, Lines 45 – 55; Column 8, Lines 11 – 27)
- **regarding claim 38**, a motor (102) that drives the power shaft (Figure 4)
- **regarding claim 39**, a sled further includes a cap (182, 184), a wiper (186, 188) and a spittoon (68a, 68b)
- **regarding claim 42**, a sled (180) including an engagement structure (150, 152, 190 of Figure 4) and a retaining structure; a power shaft (124) that transmits power to a driveshaft (Column 2, Lines 5 – 17; Column 7, Lines 28 – 30, Lines 45 – 55; Column 8, Lines 11 – 27)
- the driveshaft (82) movable between an engaged position and a disengaged position, the driveshaft in the engaged position engaging the power shaft (124) and the engagement structure (150, 152, 190, of Figure 4) of the sled (180) so as to transmit power from the power shaft (124) to the sled (180); the sled retaining structure (housing structure 52) retains the drive shaft in the engaged position in a predetermined zone of the retaining structure (Column 7, Lines 28 – 30, Lines 45 – 55; Column 8, Lines 11 – 27)

- **regarding claim 43**, a shift mechanism that moves between an actuated position and a non – actuated position, wherein movement of the shift mechanism from the non-actuated position to the actuated position moves the driveshaft from the disengaged position to the engaged position (Column 7, Lines 28 – 30, Lines 45 – 55; Column 8, Lines 11 – 27)

Claims 20-22, 24-28, 46-49, 51-54 are rejected under 35 U.S.C. 102(e) as being anticipated by Griesemer et al (U.S. Pub. 2004/0252154).

***Griesemer et al discloses:***

- **regarding claim 20**, means for servicing the printhead, the means for servicing including means for retaining (maintenance house 68) and first (wiping) and second (capping) means for engaging (Figures 4 – 5; Paragraphs 0008; 0044 – 0045; 0050)
- means for translating (86, 88) the means for servicing (70) the printhead, the means for translating operable to move (guide members 88 moving within the guide slot 86) from a first translation position (Figure 5; wiping position 92) in engagement with the first means for engaging to a second translating position (Figure 5; capping position 94) in engagement with the second means for engaging (Figures 4-5; Paragraphs 0044 – 0045; 0050)
- wherein the means for retaining (maintenance house 68) includes a retaining region, and wherein the means for retaining retains the means for translating

in the first translating position when the means for translating is positioned within the retaining region (Figures 4 – 5; Paragraphs 0008; 0044 – 0045; 0050)

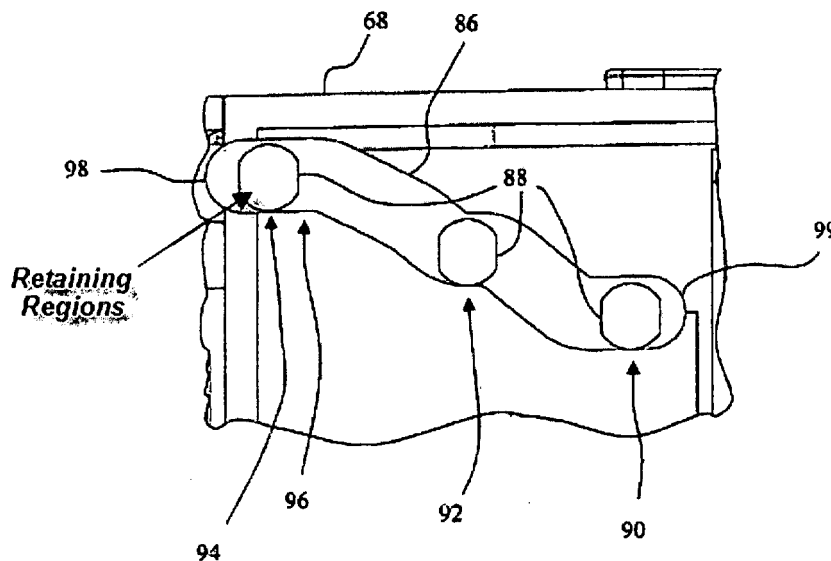


Fig. 5

- **regarding claim 21**, means for shifting the means for translating between a disengaged position and the first translation position, the means for shifting biased to shift the means for translating into the disengaged position in the absence of an external force on the means for shifting (Figures 4 – 5; Paragraphs 0008; 0044 – 0045; 0050)
- **regarding claim 24**, moving a translation device (70) into engagement with a retaining region (94, 92, or 90 of Figure 5) of a first servicing mechanism (Figures 4 – 5; Paragraphs 0008; 0034, 0044 – 0045; 0050)
- powering the translation device such that the first servicing mechanism is moved with respect to the translation device such that the translation device is

positioned out of the retaining region (94, 92, or 90 of Figure 5) (Paragraphs 0030 – 0031, 0039, 0044 – 0045)

- moving the translation device into engagement with a second region of the servicing mechanism (Figures 4 – 5; Paragraphs 0008; 0034, 0044 – 0045; 0050)

- powering the translation device such that the second servicing mechanism is moved with respect to the translation device (Paragraphs 0030 – 0031, 0039, 0044 – 0045)

- **regarding claim 25**, step of moving the translation device into engagement with the first servicing mechanism comprises moving a printhead carriage into contact with an actuation device so as to move the actuation device from a non actuated position to an actuated position, wherein movement of the actuation device from the non actuated position to the actuated position moves the translation device from a disengaged position into engagement with the first servicing mechanism (Paragraphs 0008 – 0009, 0037)

- **regarding claim 26**, removing the printhead carriage from contact with the actuation device where after a retaining wall of the retaining region retains the translation device in engagement with the first servicing mechanism in the retaining region (Figure 5; Paragraphs 0034, 0044 – 0045)

- **regarding claim 27**, powering the translation device such that the first servicing mechanism is moved with respect to the translation device such that the translation device is moved into an access region of the first servicing mechanism; and



moving the translation device through the access region of the first servicing mechanism (Paragraphs 0030 – 0031, 0034, 0039, 0044 – 0045)

- **regarding claim 28**, the translation device is biased by a biasing member to move through the access region of the first servicing mechanism (Paragraph 0036)

- **regarding claim 46**, means for translating (70) a means for servicing (100,102,104,106) the printhead, the means for translating (70) biased to move from a translating position and a non-translating position in the absence of an external force on the means for translating (Figures 4-5; Paragraphs 0008; 0044 – 0045; 0050)

- means for servicing the printhead, the means for servicing including means for retaining (88) the means for translating (70) in engagement with the means for servicing (100,102,104,106) in a predetermined zone of engagement (Figure 5) of the means for retaining (Figures 4-5; Paragraphs 0008; 0044 – 0045; 0050)

- **regarding claim 47**, means for shifting the means for translating between the translating position and the non-translation position, the means for shifting biased to translate the means for translating into the disengaged position in the absence of an external force on the manes for shifting (Figures 4-5; Paragraphs 0008; 0044 – 0045; 0050)

- **regarding claim 48 and claim 22**, the printhead is configured to selectively actuate the means for shifting by advancing into and out of contact with the means for shifting (Paragraph 0037, 0045)

- **regarding claim 49**, means for powering the means for translating, wherein the means for translating engages the means for servicing and the means for

powering in the translating position (Paragraphs 0030 – 0031, 0034, 0039, 0044 – 0045)

- **regarding claim 51**, moving a translation device into engagement with a first region of a servicing mechanism (Figures 4 – 5; Paragraphs 0008; 0034, 0044 – 0045; 0050)

- powering the translation device such that the servicing mechanism is moved with respect to the translation device and such that a second region of the servicing mechanism is moved into engagement with the translation device, the second region retaining the translation device in contact with the servicing mechanism (Paragraphs 0030 – 0031, 0034, 0039, 0044 – 0045)

- **regarding claim 52**, moving the translation device comprises moving a printhead carriage into contact with an actuation device so as to move the actuation device from a non-actuated condition to an actuated condition, wherein movement of the actuation device from the non-actuated position to the actuated position moves the translation device from a disengaged position into engagement with the first region of the servicing mechanism (Paragraphs 0008 – 0009, 0037)

- **regarding claim 53**, removing the printhead carriage from contact with the actuation device, where after the translation device remains engaged with the servicing mechanism while the translation device is in contact with the second region of the servicing mechanism; thereafter, translating the servicing mechanism, such that the second region is moved with respect to the translation device, to service the printhead in the absence of the printhead carriage (Figure 5; Paragraphs 0034, 0044 – 0045)

- **regarding claim 54**, servicing mechanism such that the second region of the servicing mechanism is moved out of contact with the translation device, whereupon the translation device is biased into the disengaged position (Figures 4 – 5; Paragraphs 0008; 0036, 0044 – 0045; 0050)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano et al (U.S. Pat. 5,907,334) in view of Griesemer et al (U.S. Pub. 2004/0252154).

***Hirano et al discloses all the claimed limitations above, except for the following:***

- **regarding claim 16**, a biasing member that biases the drive structure to move from the first engaged position to the disengaged position, the first retaining wall including a retaining region that retains the drive structure in the first engaged position and against biased movement to the disengaged position when the drive structure is positioned within the retaining region

- **regarding claim 17**, a biasing member that biases the drive structure to move from the first engaged position to the second engaged position, the second

retaining wall including a retaining region that retains the drive structure in the first engaged position when the drive structure is positioned within the retaining region

- **regarding claim 18**, a shift arm that pivots between an actuated position and a non-actuated position to the actuated position moves the drive structure from the disengaged position to the first engaged position

- wherein the biasing member biases the shift arm to pivot from the actuated position to the non-actuated positions

- a printhead carriage operable to pivot the shift arm from the non-actuated position to the actuated position by overcoming a biasing force of the biasing member

***Griesemer et al discloses:***

- **regarding claim 16**, a biasing member that biases the drive structure to move from the first engaged position to the disengaged position, the first retaining wall including a retaining region that retains the drive structure in the first engaged position and against biased movement to the disengaged position when the drive structure is positioned within the retaining region (Figures 4 – 5; Paragraphs 0008; 0044 – 0045; 0050), for the purpose of guiding and securing a maintenance sled.

- **regarding claim 17**, a biasing member that biases the drive structure to move from the first engaged position to the second engaged position, the second retaining wall including a retaining region that retains the drive structure in the first engaged position when the drive structure is positioned within the retaining region (Figures 4 – 5; Paragraphs 0008; 0044 – 0045; 0050), for the purpose of guiding and securing a maintenance sled.

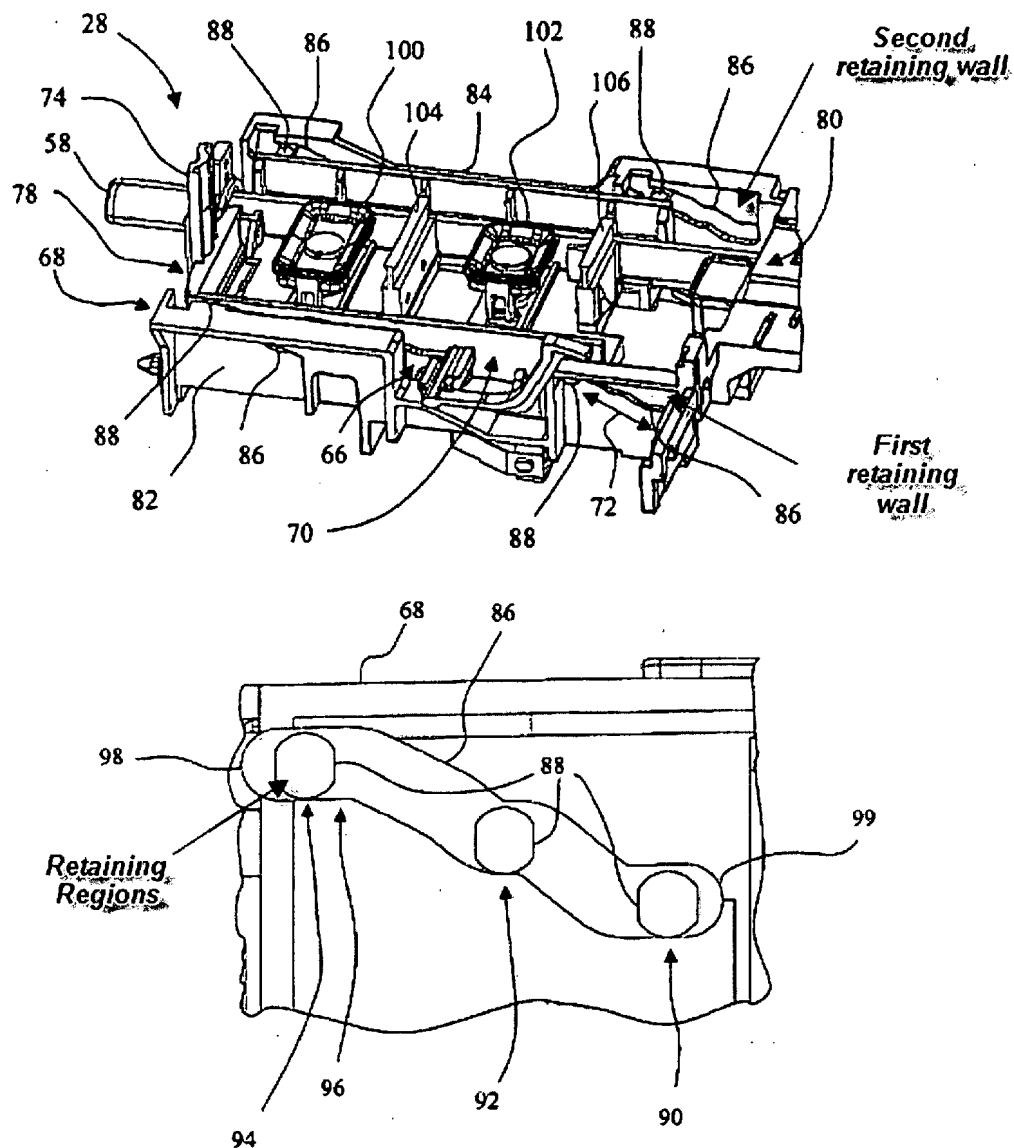


Fig. 5

Figures 4 and 5: Retaining walls

regarding claim 18, a shift arm that pivots between an actuated position and a non-actuated position to the actuated position moves the drive structure from the

disengaged position to the first engaged position (Paragraphs 0037, 0044 - 0045), for the purpose of engaging the service station to the printhead when the printhead is in the service area.

- wherein the biasing member biases the shift arm to pivot from the actuated position to the non-actuated positions; a printhead carriage operable to pivot the shift arm from the non-actuated position to the actuated position by overcoming a biasing force of the biasing member (Figures 4 – 5; Paragraphs 0008; 0036; 0044 – 0045; 0050), for the purpose of guiding and securing a maintenance sled.

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Griesemer et al into the device of Hirano et al, for the purpose of guiding and securing the maintenance sled and engaging the service station to the printhead when the printhead is in the service area.

Claims 36, 40 - 41 44 – 45, 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belon et al (U.S. Pat. 6,172,691) in view of Griesemer et al (U.S. Pat. 2004/0252154).

Belon et al discloses all the claimed limitations except for the following:

- **regarding claim 36**, a printhead carriage that moves the shift arm from the disengaged position to the engaged portion
- **regarding claim 40**, shift arm includes a biasing element that biases the shift arm to move the driveshaft into the disengaged position when the driveshaft is not positioned in the zone of the retaining wall

- **regarding claim 41**, driveshaft is in the disengaged position, the retaining wall interferes with the driveshaft thereby preventing movement of the sled
- **regarding claim 44**, carriage movable between an engaged position and a disengaged position, wherein movement of the printhead carriage from the disengaged position to the engaged position moves the shift mechanism from the non-actuated position to the actuated position
- **regarding claim 45**, shift arm including a biasing member, the biasing member biasing the shift arm into the non-actuated position in the absence of an external force on the shift arm
- **regarding claim 55**, a biasing member coupled to the driveshaft for biasing the driveshaft out of engagement with the rack

**Griesmer et al discloses:**

- **regarding claim 36**, a printhead carriage that moves the shift arm from the disengaged position to the engaged position (Paragraph 0037), for the purpose of engaging the service station to the printhead when the printhead is in the service area.
- **regarding claim 40**, shift arm includes a biasing element that biases the shift arm to move the driveshaft into the disengaged position when the driveshaft is not positioned in the zone of the retaining wall (76 of Figure 2; Paragraph 0036), for the purpose of moving a sled to the proper position.
- **regarding claim 41**, driveshaft is in the disengaged position, the retaining wall interferes with the driveshaft thereby preventing movement of the sled (Figure 2; Paragraphs 0036 – 0037, 0045), for the purpose of maintaining position of the sled.

- **regarding claim 44**, carriage movable between an engaged position and a disengaged position, wherein movement of the printhead carriage from the disengaged position to the engaged position moves the shift mechanism from the non-actuated position to the actuated position (Paragraphs 0037, 0044 - 0045), for the purpose of engaging the service station to the printhead when the printhead is in the service area.

- **regarding claim 45**, shift arm including a biasing member, the biasing member biasing the shift arm into the non-actuated position in the absence of an external force on the shift arm (Paragraph 0050), for the purpose of engaging the service station to the printhead when the printhead is in the service area.

- **regarding claim 55**, a biasing member coupled to the driveshaft for biasing the driveshaft out of engagement with the rack (Paragraph 0050), for the purpose of engaging the service station to the printhead when the printhead is in the service area.

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Griesmer et al into the device of Belon et al, for the purpose of engaging the service station to the printhead when the printhead is in the service area, and maintaining position of the sled and moving a sled to the proper position.

Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Belon et al (U.S. Pat. 6,172,691) in view of Kimura et al (U.S. Pat. 5,325,151).



***Belon et al discloses all the claimed limitations above, except for the following:***

- ***regarding claim 56***, wherein the driveshaft includes projections, and the idler gear includes projections, and wherein in the engaged position the projections of the driveshaft mate with the projections of the idler gear

***Kimura et al discloses:***

- ***regarding claim 56***, wherein the driveshaft includes projections/ratchet teeth, and the idler gear includes projections/ratchet teeth, and wherein in the engaged position the projections of the driveshaft mate with the projections/ratchet teeth of the idler gear (Column 4, Lines 33 – 45), for the purpose of powering a gear by meshing a driveshaft and said gear.

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of the driveshaft includes projections, and the idler gear includes projections, and wherein in the engaged position the projections of the driveshaft mate with the projections of the idler gear as taught by Kimura et al into the device of Belon et al, for the purpose of powering a gear by meshing a driveshaft and said gear.

Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Griesemer et al (U.S. Pub. 2004/0252154) in view of Taylor et al (U.S. Pat. 6,328,412), Ota et al (U.S. Pub. 2003/0169312) and Belon et al (U.S. Pat. 6,172,691).

***Griesemer et al discloses all the claimed limitations above except for the following:***

- ***regarding claim 50***, a servicing sled including a rack that extends along a length of the sled, the means for retaining comprises a guide wall positioned adjacent to and extending along at least a portion of the rack, the means for translating comprises a driveshaft that engages a powered gear and the rack is retained on the rack by the guide wall in the translating position, and the means for shifting comprises a shift arm including a leaf spring, a first end adapted for contact with the printhead, and a second end secured to the driveshaft

***Taylor et al discloses:***

- ***regarding claim 50***, a servicing sled including a rack that extends along a length of the sled, means for retaining comprises a guide wall/frame positioned adjacent to and extending a long at least a portion of the rack (Figure 4; Column 5, Lines 14 – 22, Lines 29 – 36; Column 9, Lines 61 – 67; Column 10, Lines 1 – 8), for the purpose of efficiently maintaining a print head with a translational print head service station.

***Belon et al discloses:***

- ***regarding claim 50***, translating comprises a driveshaft that engages a powered gear and the rack (Column 7, Lines 28 – 30, Lines 45 – 55; Column 8, Lines 11 – 27), for the purpose of providing power to the sliding apparatus.

***Ota et al discloses:***

- ***regarding claim 50***, a shift arm including a leaf spring, a first end adapted for contact with printhead, and a second end secured to the driveshaft (Paragraph

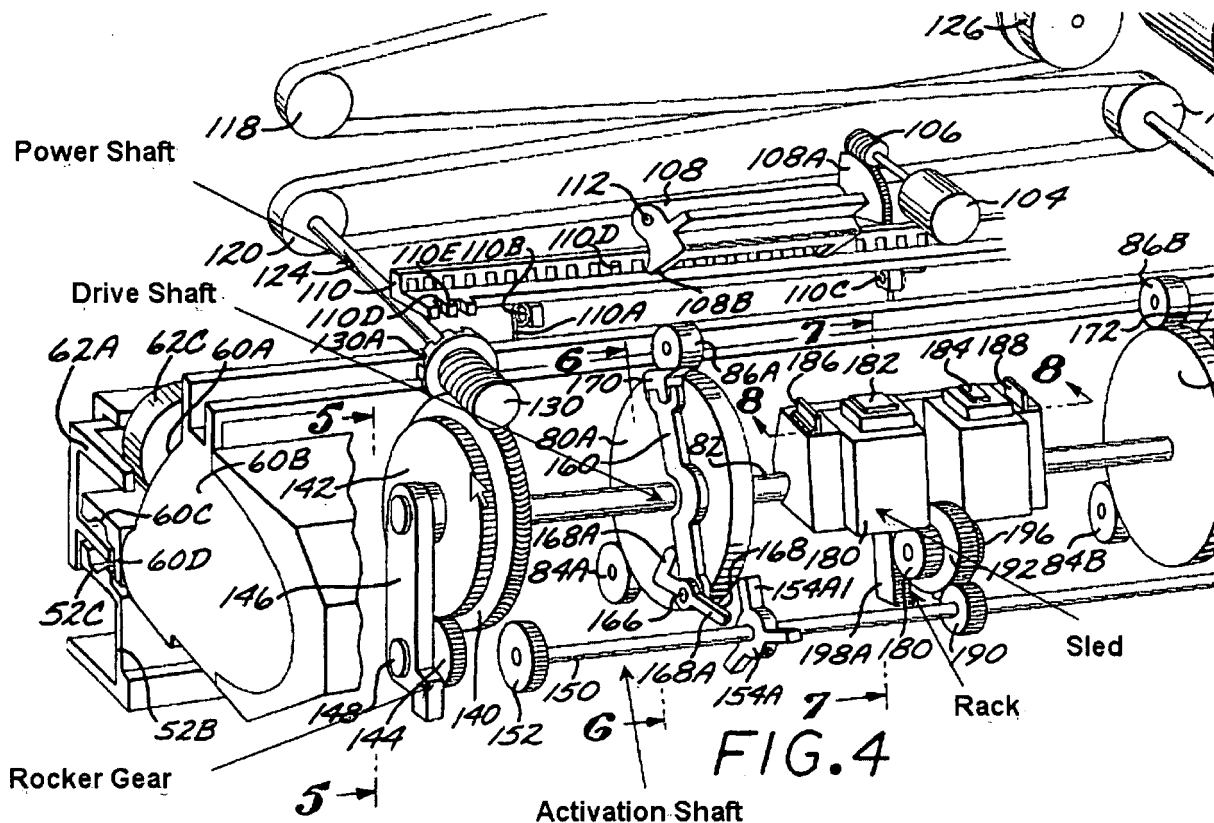
0067), for the purpose of efficiently maintaining a print head with a translational print head service station.

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Taylor et al, Ota et al, and Belon et al into the device of Griesemer et al, for the purpose of efficiently maintain a print head with a translational print head service station and provide power to the sliding apparatus.

### ***Response to Arguments***

Regarding claim 13, Hirano et al discloses a service station drive structure (Column 5, Lines 47-67) such that when the cap (37) is engaged with the black head (11), this is considered the first engaged position, and when cap 34 is engaged with the color heads (20-22), this is considered the second engaged position. The caps (34, 37) are moved toward the print heads by biasing members (35, 38, 34a, 37a).

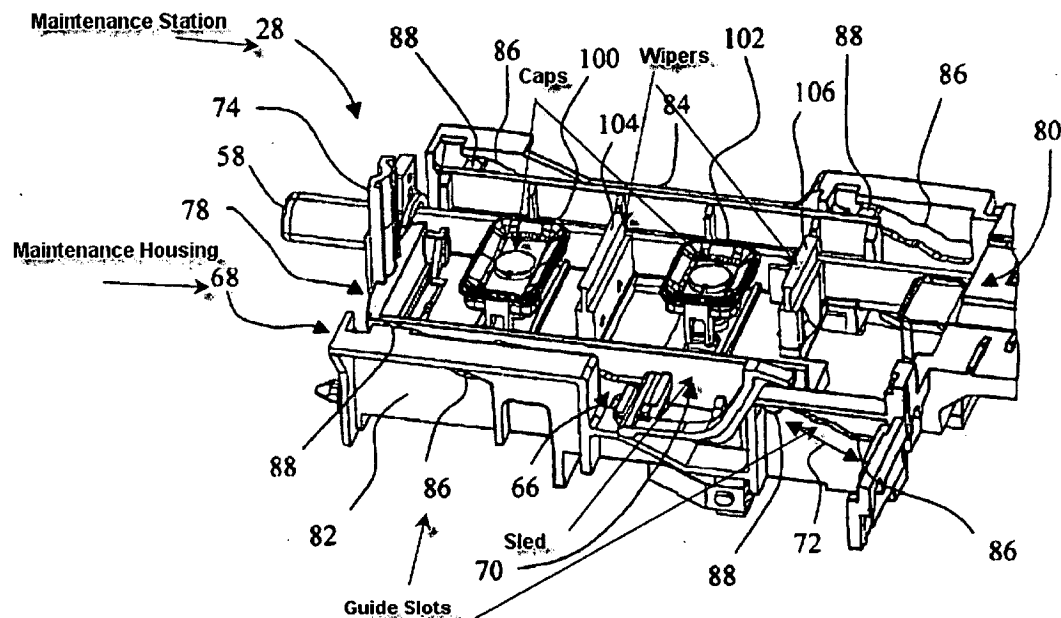
Regarding claim 31, Belon discloses service station consisting of a sled 180 and a gear rack assembly 198 to raise and lower the sled 180. An activation shaft 150 which drives the service station, engages and disengages from a rocker gear 144, and when the rocker gear 144 is engaged the activation shaft can be driven counter clockwise as the shaft 82 (drive shaft) is driven counter clockwise (Figure 4; Column 7, Lines 45-55; Column 8, Lines 11-28). The sled, rack, and activation shaft (print head servicing station) is selectively engaged to the shaft 82 (drive shaft) as claimed in Claim 31.



Regarding claim 42, Belon discloses service station consisting of a sled 180 and a gear rack assembly 198 to raise and lower the sled 180. An activation shaft 150 which drives the service station, engages and disengages from a rocker gear 144, and when the rocker gear 144 is engaged the activation shaft can be driven counter clockwise as the shaft 82 (drive shaft) is driven counter clockwise (Figure 4; Column 7, Lines 45-55; Column 8, Lines 11-28). The sled, rack, and activation shaft (engagement structure of a sled) are movable between an engaged position and a disengaged position with the shaft 82 (drive shaft) as claimed in Claim 42.

Regarding claim 20, Griesemer discloses a maintenance station 28 includes a sled 70 (means for servicing), a maintenance housing (means for retaining), a set of

print head caps 100, 102 (second means for engaging) and a set of print head wipers 104, 106 (first means for engaging) (Figure 4). The sled 70 is movably mounted to the maintenance housing via the interaction between guide slots 86 and guide members 88 (means for translating) (Figure 5). The sled 70 is operable to move with the guide members 88 to three different positions, one for spitting/rest 90, second for wiping 92 (first translating position in engagement with the first means for engaging), and finally for capping the print head 94 (second translating position in engagement with the second means for engaging) (Figures 4-5; Paragraphs 0034, 0044-0045).



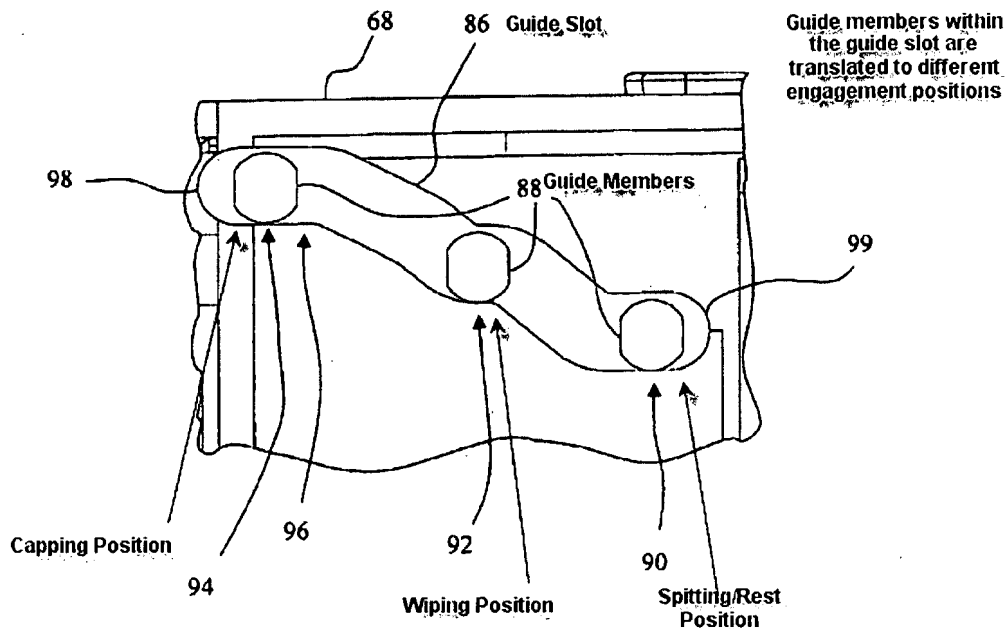


Fig. 5

Regarding claim 24, Griesemer discloses servicing mechanisms that are mounted on the sled 70 (translating device), which include wipers 104, 106, and print head caps 100, 102. The sled 70 is translated into engagement with multiple positions (90, 92, 94) (retaining region) such that the wiper (first servicing mechanism) and print head caps (second servicing mechanism) will perform maintenance functions on the print head. Whenever the sled 70 is moved, the wipers and caps that are mounted on the sled must also move with the sled 70. Therefore the wipers 104, 106 and caps 100, 102 (servicing mechanisms) move with respect to the sled 70 (translating device) (Figures 4-5; Paragraphs 0044-0045).

Regarding claim 46, Griesemer discloses a movably mounted maintenance sled (70), wherein the maintenance sled (70) includes wipers (104, 106) and capping (100,

102) members for servicing the print head. Guide members (88) are used to retain the maintenance sled (70) within the guide slot (86) in order for the wiping and capping members to engage the print head.

Regarding claim 51, Griesemer discloses servicing mechanisms that are mounted on the sled 70 (translating device), which include wipers 104, 106, and print head caps 100, 102. The sled 70 is translated into engagement with multiple positions (90, 92, 94) (retaining region) such that the wiper (first servicing mechanism) and print head caps (second servicing mechanism) will perform maintenance functions on the print head. Whenever the sled 70 is moved, the wipers and caps that are mounted on the sled must also move with the sled 70. Therefore the wipers 104, 106 and caps 100, 102 (servicing mechanisms) move with respect to the sled 70 (translating device) (Figures 4-5; Paragraphs 0044-0045).

### ***Allowable Subject Matter***

Claims 14-15, 19, 23, and 37 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the indication of allowable subject matter of claims 14 is the inclusion of the limitation of wherein the first retaining wall includes an access region, said drive structure moving through said access region when said drive structure

is moved from the disengaged position to the first engages position. It is this limitation found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the indication of allowable subject matter of claim 15 is the inclusion of the limitation of wherein the second retaining wall includes an access region, the drive structure moving through the access region when the drive structure is moved from the first engaged position to the second engaged position. It is this limitation found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the indication of allowable subject matter of claim 19 is the inclusion of the limitation of wherein in the first engaged position said servicing station drive structure is powered by a power shaft and mates with said first engagement structure to translate said first servicing sled parallel to a sled translation axis, and wherein in the second engaged position said servicing station drive structure is powered by said power shaft and mates with said second engagement structure to translate said second servicing sled parallel to aid sled translation axis.. It is this limitation found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.



The primary reason for the indication of allowable subject matter of claim 23 is the inclusion of the limitation of a printing mechanism with means for servicing comprises first and second servicing sleds, means for retaining comprises a retaining wall positioned on the first sled, first and second means for engaging comprise, respectively, first and second racks each extending along the retaining wall, the first rack positioned on the first sled and the second rack positioned on the second sled, means for translating comprises a driveshaft, and the means for shifting comprises a shift arm including a leaf spring a first end adapted for contact with the print head and a second end secured to the driveshaft. It is this limitation found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the indication of allowable subject matter of claim 37 is the inclusion of the limitation of wherein said retaining wall includes a first region and a second region, wherein powering of said driveshaft moves said driveshaft from said first region to said second region of said rack, and wherein movement of said drive shaft from said first region to said second region of said rack moves said shift arm out of engagement with said print head carriage. It is this limitation found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

Claims 1-12, 29-30 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the allowance of claims 1-12, and 30 is the inclusion of the limitation of an axially movable driveshaft including a gear; and a sled including first and second engagement structures each adapted to selectively engage said gear and a retaining structure positioned between said first and second engagement structures. It is this limitation found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claim 29 is the inclusion of the limitation of a printer comprising a servicing sled positioned within the servicing region and including a spittoon, a wiper, a cap, first and second racks and a guide wall positioned between the racks, the guide wall including a retaining region and an access region; a servicing sled drive shaft powered by the feed roller drive shaft, the servicing sled drive shaft including a gear slidably mounted thereon, and a biasing member secured to the shaft and the gear, the servicing sled drive shaft movable between a disengaged position where the gear is not in contact with the servicing sled and an engaged position where the gear is movable between contact with the first rack and second rack; wherein the biasing member biases the gear to move from the first rack to the second rack when the gear is aligned with the access region of the guide wall and wherein the retaining wall retains the gear on the first rack when the gear is positioned adjacent the retaining region of the guide wall. It is this limitation found in each of the claims, as it is claimed

in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

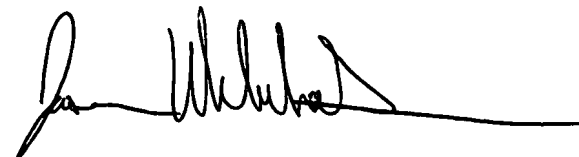
### **Conclusion**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Uhlenhake whose telephone number is (571) 272-5916. The examiner can normally be reached on Monday-Friday 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JSU  
January 17, 2008



  
JULIAN D. HUFFMAN  
PRIMARY EXAMINER

1/29/08